KASCADE_SmallDataSample_wA_runs_0877-7417_ROOT

every 400th event from the full database is taken into account for this selection, all data arrays are included

general information

Set name	KASCADE_SmallDataSample_wA_runs_0877-7417_ROOT
Data selection	OCEANUS_1s
Data format	ROOT
Number of events	general 1,080,295 array 986,577 calorimeter 250,9811 grande 88,259 lopes 8
Zip-file name / size	KASCADE_SmallDataSample_wA_runs_0877-7417_ROOT.zip / 831 MB
Data file names / size	events.root / 1100 MB
Creation date	3.5.2020
Application	Quick tests of data samples and cuts to optimize requests

KASCADE quantities selected

Quantity	Description	Range	Cut
E	Estimated primary energy	10^{13} -10^{19} eV	1/400th
Xc	X-core position	-91 - +91 m	1/400th
Yc	Y-core position	-91 - +91 m	1/400th
Ze	Zenith angle	0° - 60°	1/400th
Az	Azimuth angle	0° - 360°	1/400th
Ne	Number of e/γ particles	100 - 500,000,000	1/400th
Nmu	Number of Muons	100 - 50,000,000	1/400th
Age	Shower age	0.1 – 1.48	1/400th

CALORIMETER quantities selected

Quantity	Description	Range	Cut
Nhad	Number of Hadrons	0 – 511	1/400th
Ehad	Energy sum of Nhad Hadrons	0, 10^{10} – 10^{16} eV	1/400th

GRANDE quantities selected

Quantity	Description	Range	Cut
Xc	X-core position Grande	-500 - +100 m	1/400th
Yc	Y-core position Grande	-600 - + 100 m	1/400th
Ze	Zenith angle Grande	0° - 40°	1/400th
Az	Azimuth angle Grande	0° - 360°	1/400th
Nch	Number of charged particles Grande	11111 - 1,000,000,000	1/400th
Nmu	Number of Muons Grande	1500 - 100,000,000	1/400th
Age	Shower age Grande	-0.385 – +1.488	1/400th

GENERAL quantities selected

Quantity	Description	Range	Cut
T	Air temperature	-20 ° - +50°	1/400th
P	Air pressure	960 -1040 hPa	1/400th
Gt	Global time (sec's since 1.1.1970)	894,638,100 – 1,358,239,243	1/400th
Mt	Micro time	0 – 999,999,999	1/400th
DateTime	Date & Time	8.5.1998–15.1.2013	1/400th
R	Run number	887 - 7417	1/400th
Ev	Event number	1 – 4,100,000	1/400th
UUID	Universal Unique Identifier		1/400th
EDeposit	Energy Deposit of e/γ-particles / station	0.0– 30,000.0 MeV	1/400th
MDeposit	Energy Deposit of Muons / station	0.0 – 1000.0 MeV	1/400th
GDeposit	Energy Deposit of charged-particles / GRANDE station	0.0 – 100,000.0 MeV	1/400th
Arrival	Arrival Time / station	-1550.0 – 2550.0 ns	1/400th
GArrival	Arrival Time / GRANDE station	1000.0 – 10,000.0	1/400th
Height	amplitude of pulse	0 – 60 µV/m/MHz	1/400th
Distance	distance of antenna position to shower axis	ms	1/400th
EnvelopTime	time of maximum envelop	0 – 800 ms	1/400th
Polarization	alignment of antenna	NS or EW	1/400th

LOPES quantities selected

Quantity	Description	Range	Cut
EfieldMaxAbs	maximum atmospheric electric field	0 - 50,000 V/m	1/400th
Azimuth EW & NS	azimuth of LOPES CC beam; EW & NS	0 – 360°	1/400th
Elevation EW & NS	elevation of CC beam; EW & NS	0 – 360°	1/400th
CC Height EW & NS	amplitude of CC beam; EW & NS	0 – 20 µV/m/MHz	1/400th
XHeight EW & NS	amplitude of X-beam; EW & NS	0 – 20 µV/m/MHz	1/400th
ConeAngle EW & NS	cone angle of wavefront; EW & NS	0 – 0,1 rad	1/400th
NCCBeanAnt EW & NS	nr of antennas contributing; EW & NS	0 – 30	1/400th
Eta EW & NS	slope parameter of LDF; EW & NS	-0.04 - 0.11 /m	1/400th
Eps EW & NS	ampl parameter of LDF; EW & NS	-0.04 - 0.11 µV/m/MHz	1/400th
Geomag_Angle	angle between geomagnetic field and KASCADE shower axis	0 – 120 °	1/400th
Geomag_AngleG	angle between geomagnetic field and GRANDE shower axis	0 – 120 °	1/400th
Reconstruction	angle between geomagnetic field and GRANDE shower axis	65 or 71	1/400th
LOPES Comp ID	LOPES identifier	0 or 1	1/400th